

## CLAIMS:

1. A method of analyzing a data set of an object to be examined, which data set comprises voxels of at least a first type and a second type, said method comprising the following steps:

- a) classifying the voxels as voxels of the first, the second or further types;
- 5 b) determining which of the voxels of the first type are boundary voxels that adjoin voxels of the second or further types;
- c) assigning a data value to each voxel of the first type, said data value representing a measure of the distance between said voxel and the nearest boundary voxel;
- d) classifying the voxels of the first type that have a distance data value exceeding a  
10 predetermined threshold as aberration voxels.

2. A method as claimed in claim 1, also comprising the following steps:

- e) determining which of the aberration voxels are boundary aberration voxels adjoining voxels of the first type;
- 15 f) adding a number of voxels of the first type that form a shell of a certain thickness to the aberration voxels;

3. A method as claimed in claim 2, wherein the step f comprises the steps of:

- f1. assigning a data value to each voxel of the first type, said data value representing a  
20 measure of the distance between said voxel and the nearest boundary aberration voxel;
- f2. classifying the voxels of the first type that have a distance data value less than or equal to a predetermined ceiling value as aberration voxels.

4. A method as claimed claim 1, 2 or 3, also comprising the steps of:

- 25 determining the sum of all aberration voxels and multiplying the sum of the aberration voxels by the volume of a single voxel so as determine the volume of the aberration.

5. A method as claimed in one or more of the preceding claims, wherein said distance data values are computed by means of a distance transform function.

6. A method as claimed in one or more of the preceding claims, wherein said threshold and/or ceiling value is set by the user.

7. A method as claimed in one or more of the preceding claims 1 through 5, wherein said threshold and/or ceiling value is computed on the basis of a histogram of distance data values.

8. A method as claimed in one or more of the preceding claims, also comprising the steps of:  
defining a tubular structure of voxels of the first type piercing through the aberration;  
determining the number of voxels of the tubular structure and subtracting said number from the number of aberration voxels.

9. A method as claimed in claim 8, also comprising the steps of:  
a. classifying all boundary aberration voxels as potential tubular structure voxels;  
b. selecting a starting point from among the potential tubular structure voxels;  
c. selecting an end point from among the potential tubular structure voxels;  
d. connecting the starting point to the end point thus defining the tubular structure.

10. A computer program for carrying out the method as claimed in one or more of the preceding claims.